

Abstract of the Disclosure

There are provided a bi-directional transceiver module and a method for driving the same. The bi-directional transceiver module includes a 1.3 μm Distributed Bragg Reflection Laser Diode (DBR LD) including an active layer which performs light-emission in response to a light at 1.3 μm and a DBR mirror formed near the active layer. The DBR mirror is formed to prevent an upstream signal emerging from the 1.3 μm DBR LD from being deleted by a PD. A monitoring PD and a PD for detecting an optical signal are integrated and mounted behind the DBR mirror using a butt-joint method. The 1.3 μm DBR LD, the monitoring PD, and the PD for detecting the optical signal are electrically isolated by insulated areas. To drive the bi-directional transceiver module, a forward bias (+) is applied to a p-electrode formed on the 1.3 μm DBR LD, a backward bias (-) is applied to p-electrodes formed on the monitoring PD and the PD for detecting the optical signal, and a n-electrode as a common electrode is grounded.